



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D5136-2**  
**Job Sheet 191185**



**Part No:** D5136-2

**Job Qty:** 10 pcs

**Part Name:** Contact Pad, RH



**Part Weight:** 0 lbs

**Status:** New

**Priority:** Medium

**Job Created:** 2/22/19

**Job Tracking No:**

**Due Date:** 3/29/19

**Created By:** Jesse White

**Type:** Stock

**Description:**

**Note:** DWG REV A IPP rev:A NEW ISSUE 14.09.02 RQ verified by JLM

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation  | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off           |
|-------|------------|--------|------------|----------|-----------|---------|-----------------------|-----------|--------------------|
|       |            |        |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |                    |
| 100   | Doosan - 1 | 10 pcs | 3/29/19    | 3/29/19  | 0.00      | 4.37    | Doosan - 1            |           | <i>[Signature]</i> |
| 110   | QC 2       | 10 pcs | 3/29/19    | 3/29/19  | 0.00      | 0.00    | QC 2 - 1              |           | <i>[Signature]</i> |
|       |            |        |            |          |           |         | QC 2 - 12             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 14             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 17             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 19             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 2              |           |                    |
|       |            |        |            |          |           |         | QC 2 - 20             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 22             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 23             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 25             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 32             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 33             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 35             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 39             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 4              |           |                    |
|       |            |        |            |          |           |         | QC 2 - 40             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 44             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 45             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 48             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 49             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 50             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 51             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 52             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 54             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 56             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 57             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 62             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 63             |           |                    |
|       |            |        |            |          |           |         | QC 2 - 8              |           |                    |
|       |            |        |            |          |           |         | QC 2 - 66             |           |                    |



**Container No:** S180401



**Part:** D5136-2

**Job No:** 191185

**Serial No/Batch:** S180401

**Revision:**

**Inspector:**

**Exp Date:**

**Instructions:** Various STC's

Dart Aerospace Ltd.  
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CANADA  
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Email: sales@dartaero.com  
www.dartaerospace.com

Date: 05/11/19



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |

|     |                             |        |         |           |                       |  |
|-----|-----------------------------|--------|---------|-----------|-----------------------|--|
| 120 | HAAS 4 Axis - B4B           | 10 pcs | 3/29/19 | 0.00 4.65 | QC 2 - 64             |  |
|     |                             |        |         |           | HAAS - 1 - B4B        |  |
|     |                             |        |         |           | HAAS - 2 - B4B        |  |
|     |                             |        |         |           | HAAS - 3 - B4B        |  |
|     |                             |        |         |           | HAAS - 4 - B4B        |  |
| 130 | QC 2                        | 10 pcs | 3/29/19 | 0.00 0.00 | QC 2 - 1              |  |
|     |                             |        |         |           | QC 2 - 12             |  |
|     |                             |        |         |           | QC 2 - 14             |  |
|     |                             |        |         |           | QC 2 - 17             |  |
|     |                             |        |         |           | QC 2 - 19             |  |
|     |                             |        |         |           | QC 2 - 2              |  |
|     |                             |        |         |           | QC 2 - 20             |  |
|     |                             |        |         |           | QC 2 - 22             |  |
|     |                             |        |         |           | QC 2 - 23             |  |
|     |                             |        |         |           | QC 2 - 25             |  |
|     |                             |        |         |           | QC 2 - 32             |  |
|     |                             |        |         |           | QC 2 - 33             |  |
|     |                             |        |         |           | QC 2 - 35             |  |
|     |                             |        |         |           | QC 2 - 39             |  |
|     |                             |        |         |           | QC 2 - 4              |  |
|     |                             |        |         |           | QC 2 - 40             |  |
|     |                             |        |         |           | QC 2 - 44             |  |
|     |                             |        |         |           | QC 2 - 45             |  |
|     |                             |        |         |           | QC 2 - 48             |  |
|     |                             |        |         |           | QC 2 - 49             |  |
|     |                             |        |         |           | QC 2 - 50             |  |
|     |                             |        |         |           | QC 2 - 51             |  |
|     |                             |        |         |           | QC 2 - 52             |  |
|     |                             |        |         |           | QC 2 - 54             |  |
|     |                             |        |         |           | QC 2 - 56             |  |
|     |                             |        |         |           | QC 2 - 57             |  |
|     |                             |        |         |           | QC 2 - 62             |  |
|     |                             |        |         |           | QC 2 - 63             |  |
|     |                             |        |         |           | QC 2 - 8              |  |
|     |                             |        |         |           | QC 2 - 66             |  |
|     |                             |        |         |           | QC 2 - 64             |  |
| 140 | QC 8                        | 10 pcs | 3/29/19 | 0.00 0.00 | QC 8 - 12             |  |
|     |                             |        |         |           | QC 8 - 14             |  |
|     |                             |        |         |           | QC 8 - 17             |  |
|     |                             |        |         |           | QC 8 - 20             |  |
|     |                             |        |         |           | QC 8 - 25             |  |
|     |                             |        |         |           | QC 8 - 3              |  |
|     |                             |        |         |           | QC 8 - 32             |  |
|     |                             |        |         |           | QC 8 - 33             |  |
|     |                             |        |         |           | QC 8 - 35             |  |
|     |                             |        |         |           | QC 8 - 39             |  |
|     |                             |        |         |           | QC 8 - 4              |  |
|     |                             |        |         |           | QC 8 - 44             |  |
|     |                             |        |         |           | QC 8 - 45             |  |
|     |                             |        |         |           | QC 8 - 49             |  |
|     |                             |        |         |           | QC 8 - 58             |  |
|     |                             |        |         |           | QC 8 - 8              |  |
|     |                             |        |         |           | QC 8 - 9              |  |
|     |                             |        |         |           | QC 8 - 68             |  |
|     |                             |        |         |           | QC 8 - 67             |  |
|     |                             |        |         |           | QC 8 - 1 (A)          |  |
| 150 | Packaging 3-1 - Stock - B4B | 10 pcs | 3/29/19 | 0.00 0.00 | QC 8 - 47             |  |
|     |                             |        |         |           | Packaging 3 - 1 - B4B |  |
|     |                             |        |         |           | Packaging 3 - 2 - B4B |  |

DAS  
64  
9-89DAS  
64  
9-89

KT 19-05-18



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div> |  |                               |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | MRB (QSI042)                  |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | <b>Completed By</b>           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | <b>Lead hand / Supervisor</b> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | <b>QC / QA Coordinator</b>    |  |
| <b>Root Cause</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br>Other/Details: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                               |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  |                        |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|------------------|------------------------|----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 3 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 4 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 5 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 6 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 7 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 8 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 9 - B4B  |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 10 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 11 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 12 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 13 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 14 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 15 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 16 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 17 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 18 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 19 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 20 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 21 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 22 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 23 - B4B | PC LG055 MAY 21 2019 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 24 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 25 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 26 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 27 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 28 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 29 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 30 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 31 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 32 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 33 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 34 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 35 - B4B |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | Packaging 3 - 36 - B4B |                      |
| 160 QC 21 - SA                                                                                                                                                                                                                                                                                                                                                                                                                 | 10 pcs                | 3/29/19               | 0.00 0.00        | QC 21 - SA - 21        | DAG MAY 22 2019      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | QC 21 - SA - 70        | 21                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |                  | QC 21 - SA - 53        | 9-09                 |
| Part Op 100 - Doosan Lathe - Machine as per folio FB336 turning detail.<br>Descriptions: 110 - QC2- Inspect parts off machine FAI/FAIB)<br>120 - HAAS CNC Vertical Machine - Machine as per Folio FB336<br>130 - QC2- Inspect parts off machine FAI/FAIB<br>140 - QC8- Inspect parts - second check<br>150 - Identify as per dwg & Stock Location: _____ LOCATION : LG055<br>160 - QC21- Final Inspection - Work Order Release |                       |                       |                  |                        |                      |
| <b>Job BOM</b>                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                       |                  |                        |                      |
| <b>Part / Item</b>                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Component Name</b> | <b>Quantity</b>       | <b>Operation</b> | <b>Container</b>       |                      |
| D6104-005                                                                                                                                                                                                                                                                                                                                                                                                                      | Round Billet, 17-4    | 3.3330 pcs (.3333 ea) | 100-Doosan - 1   | 5124201                |                      |
| <b>Job Allocations</b>                                                                                                                                                                                                                                                                                                                                                                                                         |                       |                       |                  |                        |                      |
| <b>Operation</b>                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Component Part</b> | <b>Required</b>       | <b>Inventory</b> | <b>Allocated</b>       |                      |
| 100-Doosan - 1                                                                                                                                                                                                                                                                                                                                                                                                                 | D6104-005             | 3                     | 48               | 0                      |                      |
| <b>Part Specifications</b>                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                       |                  |                        |                      |
| Specifications could not be found.                                                                                                                                                                                                                                                                                                                                                                                             |                       |                       |                  |                        |                      |



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



